DOCUMENT RESUME

ED 388 614 SO 025 779

AUTHOR	Sykes, Mabel
TITLE	A Sourcebook of Problems for Geometry Based upon Industrial Design and Architectural Ornament.
REPORT NO	ISBN-0-86651-795-2
PUB DATE	94
NOTE	364p.; Originally published in 1912 by Norwood Press, Norwood, MA.
AVAILABLE FROM	Dale Seymour Publications, P.O. Box 10888, Palo Alto, CA 94303-0879 ($17.95; order number DS21327).
PUB TYPE	Books (010) -- Guides - Classroom Use - Instructional Materials (For Learner) (051) -- Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE	Document Not Available from EDRS.
DESCRIPTORS	Algebra; Architectural Drafting; *Architectural Education; Art; *Building Design; *Geometric Constructions; *Geometry; High Schools; Industrial Arts; *Mathematical Formulas; Patternmaking; Polygons; *Ratios (Mathematics); Symmetry
IDENTIFIERS	Circles; Golden Ratio (Mathematics); Triangles

ABSTRACT

This updated reprint of a classic work presents design analysis of geometric patterns and information helpful to constructing mathematical drawings of industrial and achitectural features. Both simple and complex designs are given. Problems combine both algebra and geometry. The work is divided into six chapters which are further divided into sub-headings. Chapter 1: Tile Designs, includes "Sizes and Shapes of Standard Tiles," and "Tiled Floor Patterns." Chapter 2: Parquet Floor Designs, gives "Designs in Rectangles and Parallelograms," "Designs Based on the Isosceles Right Triangle," "Designs Containing Squares Within Squares," and "Designs Containing Stars, Rosettes, and Crosses Within Squares." Chapter 3: Miscellaneous Industries, presents "Designs Based on Octagons Within Squares," "Designs Containing Eight-Pointed Stars," "Designs Formed From Arcs of Circles," "Designs Formed from Line-Segments and Circle-Arcs," and "Designs Based on Regular Polygons." Sub-headings in Chapter 4: Gothic Tracery: Forms in Circles, are "Forms Containing Circles Inscribed in Triangles," "Rounded Trefoils," "Rounded Quadrifoils," "Rounded Multifoils," and "Other Foiled Figures." Chapter 5, Gothic Tracery: Pointed Forms, includes "Forms Based on the Equilateral Triangle," "Forms Containing Tangent Circles: Geometric Constructions," "Forms Containing Tangent Circles: Algebraic Analysis," and "Venetian Tracery." Chapter 6: Trusses and Arches, gives "Raftered Roofs and Trusses," and "Arches." An updated Bibliography, an Index to Problems and Theorems, and an Index to Notes and Illustrations conclude the book. (MM)

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